



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,975	07/17/2003	Kenji Ishida	2552-000055	2224
27572	7590	06/03/2005	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			WARREN, DAVID S	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/621,975

Applicant(s)

ISHIDA ET AL.

Examiner

David S. Warren

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7-10 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/17/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 3, and 7 - 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (5,058,480) in view of Morhbacher (5,602,356).

Regarding all independent claims, Suzuki discloses the use of an operating terminal that can be carried by an operator (1, fig. 3) and generates motion information (figs. 4 and 6), a music editing apparatus (fig. 6) that edits music on the basis of motion (the control of note timing, color, pitch, etc. is deemed to be "editing" by the Examiner), a musical tone generating device (20, fig. 5), a peak detector for detecting peak motion information (see D, fig. 4; paragraph bridging cols. 3 and 4; col. 4, first paragraph; and fig. 6), a control information generating device for generating music production control information based on peak information (e.g., key-on data is music production control information, col. 4, first paragraph) and generates acoustic effect control information (e.g., volume is an acoustic effect). Suzuki also discloses the use of a first and second threshold value (V_{th} , $-V_{th}$, respectively). Furthermore, Suzuki discloses a music editing device (figs. 5 and 7; the Examiner interprets "editing" to be modifying in accordance

Art Unit: 2837

with motion). Suzuki does not disclose the use of a controlling acoustic effect information when a peak is detected between a first and second threshold nor of generating music control information when the peak signal is above both the first and second threshold values. However, it is extremely well-known to use multiple threshold values to control plural music parameters. Mohrbacher discloses one such scheme; Mohrbacher states (see paragraph bridging cols. 19 and 20):

In other words, striking the key softly or sharply will play the programmed note, while striking the key within the force thresholds but outside of the sweetspot allows the note to be bent or changed. If the key is struck within the force thresholds near the sweetspot and then moved toward the furthest end of outboard area 147, the tone would change from the preprogrammed note to a note one half step up, in the same manners as graphically illustrated in FIG. 7.

In other words, Mohrbacher discloses adding an acoustic effect (i.e., note bending) when the key motion is between two thresholds and playing the note (i.e., music control information) when the key motion is below both thresholds. It would have been obvious to one of ordinary skill in the art to combine the teachings of both Suzuki and Mohrbacher to obtain a motion detector to control both music control information and acoustic effect information based on two threshold values. The motivation for making this combination is that the use of plural thresholds, as taught by Mohrbacher, provides greater control and flexibility when generating music. This motivation is especially appropriate since both Suzuki and Mohrbacher disclose the use of plural thresholds, motion detection apparatus, and plural musical parameter control.

Allowable Subject Matter

3. Claims 4 – 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Regarding claim 4, the prior art does not show the use of a locus shape identifying device based on when the peak value is between a first and second threshold and applying an acoustic effect thereto. Claims 5 and 6 depend from claim 4 and would be allowable if the limitations of claim 4 were added to claim 3.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Itoh et al. ('116), Ishida ('140), Usa ('219), and Moore ('024) all disclose converting motion to music control attributes

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Warren whose telephone number is 571-272-2076. The examiner can normally be reached on M-F, 9:30 A.M. to 6:30 P.M..

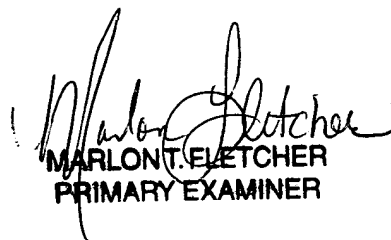
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2800 ext 37. The fax phone

Art Unit: 2837

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dsw


MARLON T. FLETCHER
PRIMARY EXAMINER